

R E M A R K S

Claims 1-35 are pending and under consideration. In the non-final Office Action of July 18, 2006, the Examiner made the following disposition:

- A.) Commented on Applicants' claim for foreign priority.
- B.) Rejected claims 1-14 and 20-35 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris, et al. (Coulouris, Distributed Systems Concepts and Design, 2d. ed., Addison-Wesley, 1994)*("Coulouris") in view of *Fidge (Fidge, "Logical Time in Distributed Computing Systems," Computer, Vol. 24, Issue 8, pp. 28-33, ISSN 0018-9162, August 1991)*("Fidge").
- C.) Rejected claims 15-19 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris* in view of *Fidge* and further in view of *Liedtke (Liedtke, "Improving IPC by Kernel Design," ACM Symposium on Operating System Principles, Proceedings of the Fourteenth ACM Symposium on Operating Systems Principles, ACM Press, pp. 175-188, 1994)*("Liedtke").

Applicants respectfully traverse the rejections and address the Examiner's disposition below.

- A.) Regarding Examiner's comments on Applicants' claim for foreign priority:

Applicants will submit a certified copy of the foreign priority application in a separate communication.

- B.) Rejection of claims 1-14 and 20-35 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris* in view of *Fidge*:

Applicants respectfully disagree with the rejection.

Independent claims 1, 12, 22, 23, 34, and 35 each claim subject matter relating to service calls that are generated by a plurality of threads at a server and received at a client. The client receives a synchronization call indicates that one of the threads executed at the server has changed and indicates a number of service calls generated by the threads at the server prior to the thread change. The synchronization call is transmitted to the client to allow the client to synchronize a service call execution.

In an illustrative example, if one of the threads executing at the server has changed, the server sends a synchronization message to the client. The synchronization message indicates that a thread has changed and indicates that 20 service calls have been generated by the server threads prior to the change. The client may synchronize service call execution by knowing that 20 service calls have been generated. If 10 service calls have been executed at the client prior to receiving the synchronization call, then the client may place at least one of the service calls into a wait position to synchronize.

This is clearly unlike *Coulouris* in view of *Fidge*, which fails to disclose or suggest Applicants' claimed synchronization call. The Examiner cites several passages from *Coulouris*, however Applicants submit that none of the cited passages suggest a synchronization call that identifies whether a thread has changed and a number of service calls generated by threads at a server prior to the thread change. The passages cited by the Examiner relate to two types of subject matter: 1) timestamps and 2) remote procedure call ordering. *Coulouris* pages 326-327 describes that multiple processes (p_i) can pass messages to each other. Each message carries a time stamp VT_i . As described in *Coulouris*,

The value $VT_i[k]$ represents a count of events (for example, updates to replicas) that have occurred at p_k and that are known at p_i , either because they originate there or because their existence is known about through message passing.

Id.

Coulouris describes an illustrative timestamp as the vector [3,4,4]. *Id.* In the example, the sending process (process RM1) knows that 3 events have occurred for process RM1, 4 events have occurred for process RM2, and 4 events have occurred for process RM3. Therefore, *Coulouris*' message merely identifies the number of events (3, 4, and 4) that have occurred at each process and that are known to the message-sending process. This fails to disclose or suggest identifying 1) whether a thread has changed or 2) the number of calls generated by threads prior to the thread change.

The other passages cited by the Examiner relate to ordering remote procedure calls (RPCs). *Coulouris* teaches that RPCs can be synchronously or asynchronously received. When they are asynchronously received, they can be reordered into a desired order. *Coulouris* pages 150-151. This still fails to disclose or suggest identifying 1) whether a thread has changed or 2) the number of calls generated by threads prior to the thread change.

Fidge also fails to disclose or suggest Applicants' claimed synchronization call. The Examiner argues that *Fidge* at page 30, Rules B and F, discloses or suggest Applicants' claimed synchronization call. Applicants respectfully disagree. These passages from *Fidge* fail to describe a synchronization call that identifies whether a thread has changed, and that identifies the number of calls generated by a plurality of threads prior to the thread change. Nowhere do these passages from *Fidge* mention keeping track of a number of calls, let alone a number of calls generated by a plurality of threads prior to a thread change.

Thus, *Coulouris* in view of *Fidge* still fails to disclose or suggest Applicants' claims 1, 12, 22, 23, 34, and 35.

Claims 2-11, 13-21, and 24-33 depend directly or indirectly from claims 1, 12, or 23 and are therefore allowable for at least the same reasons that claims 1, 12, and 23 are allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

C.) Rejected claims 15-19 under 35 U.S.C. §103(a) as allegedly being unpatentable over *Coulouris* in view of *Fidge* and further in view of *Liedtke*:

Applicants respectfully disagree with the rejection.

Independent claim 12 is allowable over *Coulouris* in view of *Fidge* as discussed above. *Liedtke* still fails to disclose or suggest Applicants' claimed synchronization call. Therefore, *Coulouris* in view of *Fidge* and further in view of *Liedtke* still fails to disclose or suggest claim 12.

Claims 15-19 depend directly or indirectly from claim 12 and are therefore allowable for at least the same reasons that claim 12 is allowable.

Applicants respectfully submit the rejection has been overcome and request that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-35 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

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